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ABSTRACT

Two studies were designed to examine the relationship between moral judgment and role-taking in young children. In Study I, 30 lower class and 30 middle class five-year-olds were presented with affective, cognitive and perceptual role-taking tasks. Task performances were then examined in relation to four dimensions of moral judgment--blameworthiness, restitution, intentionality, and intent-consequence. Analysis of the data suggests that affective and cognitive role-taking may emerge before perceptual role-taking in young children. Also, 5-year-olds seem to best understand the notion of blameworthiness, followed by restitution, and to a lesser extent, intentionality. Study II investigated the relationship between role-taking and moral judgment in 34 kindergarten and 38 second graders, using age as a variable. Affective, cognitive and perceptual role-taking were studied in relation to the moral judgment dimensions of intentionality and restitutive justice. A significant correlation was found between role-taking and moral judgment, especially cognitive role-taking. In addition, 7-year olds had higher scores than 5-year olds on all areas of role-taking except the perceptual tasks, and 7-year-olds had higher scores than 5-year-olds on total moral judgment and intentionality but not on restitution. Suggestions for future research are made. (SET)

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MORAL JUDGMENT AND ROLE-TAKING IN CHILDREN AGES THREE TO SEVEN

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INTRODUCTION

According to cognitive developmental theorists, the child progresses through an invariant sequence of age-related changes in moral development. Piaget (1932) and Kohlberg (1964, 1969) suggest that the development of moral judgments is a function of the growth of cognitive structures, which provide both the framework for, and impose limitations upon the kinds of moral judgments the child can make at different ages. In cognitive-developmental theory, social experiences become important only as they influence cognitive growth. This is in sharp contrast to the psychoanalytic position which emphasizes internalization of parental values in early childhood through identification (Aronfreed, 1961; Maccoby, 1968; Malmquist, 1968) and to the social learning position of early learning of moral behavior through reinforcement of socially sanctioned behaviors (Allinsmith, 1960; Burton, Maccoby, & Allinsmith, 1961). Both Piaget and Kohlberg focus chiefly on the school-age child; for both theorists, the child does not become "moral" until he is 8 to 12 years of age, and can understand and use notions of reciprocity and equality. Piaget views the child under seven as "premoral," possessing a rudimentary understanding of justice that is based on constraint emerging from the unilateral relation between a child (as inferior) and a parent (as superior). Justice is characterized by moral realism--tendency to perceive the unreal as real--and egocentrism--thinking that everyone sees things from the child's perspective.

Kohlberg describes the child under seven as "amoral" in that he does not make a distinction between justice and duty or obedience; whatever conforms to the dictates of adult authority is considered just. Contrary to Piaget, Kohlberg maintains that the child's primary motivation is not based on respect for authority, but on desire to avoid punishment.

Recent research (Irwin & Hill, 1971; Irwin & Moore, 1972) indicates that when given tasks more in keeping with childhood rather than adult experiences and decisions, the four-year-old child can make distinctions concerning blameworthiness (assignment of guilt and innocence) and restitution (restoring, repairing, or replacing damage done).

By five years of age he shows an understanding of the role of apology and can make appropriate distinctions between accidental and intentional misdeeds when both events involve the same amount of damage or misbehavior. Cognitively, this follows a pattern from absolute external dimensions (blameworthiness) to relative internal dimensions (intentionality).

Studies investigating the relation between IQ and moral judgments indicate that both Piaget's and Kohlberg's stages are largely cognitively based (Abel, 1941; Boehm, 1962; Johnson, 1962; MacRae, 1954; Whiteman & Koiser, 1964); however, the specific cognitive skills influencing moral development have received little empirical attention.

Both Piaget and Kohlberg identify role-taking ability--the ability to put oneself in the place of others and recognize that other individuals may have points of view different from one's own--as the major cognitive prerequisite for moral growth. Kohlberg (1969) states that "moral development is fundamentally a process of the restructuring of modes of role-taking (p. 399)." Selman's (1971a) data on eight-, nine-, and ten-year-olds provides

the only empirical test of this hypothesis. According to his findings, "The development of the ability to understand the reciprocal nature of interpersonal relations is a necessary but not sufficient condition for the development of conventional moral thought." (p. 79) Piaget and Kohlberg talk of the importance of role-taking skills with regard to moral development; they do not delineate which dimensions of role-taking are most important.

It would seem probable that the age differences found in the Irwin & Hill and Irwin & Moore studies are due to changes in the child's ability to form abstract concepts and to changes in childish egocentrism. Applying notions of justice to social situations of the kind represented in these studies requires some degree of awareness of the viewpoints and perspectives of others, i.e., of role-taking skills. This is consistent with the cognitive-developmental position that role-taking skills are important for moral development. It tells us nothing, however, about the specific kinds of role-taking skills that are necessary for moral cognitive growth.

The term "role-taking" may be described as what Gewirtz (1969) calls a "summary variable." It is taken as a summary term to describe different properties or dimensions of a complex variable or set of variables (similarly, aggression, dependence, achievement, and moral judgment are also summary variables). In essence, role-taking refers to the development of social and cognitive decentering--moving away from egocentrism to considering the perspective or viewpoint of others. Selman (1971b) describes role-taking as:

> Explicitly social-interpersonal in requiring the ability to infer another's capabilities, attributes, expectations, feelings, and potential reaction...the ability to differentiate the other's view from one's own, and...to shift, balance, and evaluate both perceptual and cognitive object, all of which is clearly cognitive (p. 1).

While role-taking is obviously a multi-dimensional social-cognitive skill, empirical studies have typically focused on a single dimension of role-taking. Most studies have focused on perceptual role-taking--the ability to take another's visual perspective (Cowan, 1967; Ensley, 1971; Flavell, et al., 1968; Kingsley, 1971; Tanaka, 1966). The general picture that emerges across studies of perceptual role-taking is that this is a skill that does not become effectively integrated until middle childhood (9 to 11 years of age), but that it has distinct beginnings in the preschool years (Flavell, et al., 1968; Laubengayer, 1965; Lovell, 1959; Piaget, 1926; Piaget & Inhelder, 1956; Selman, 1971a, 1971b; Tanaka, 1966).

The pilot-exploratory work of Flavell et al. (1968) generated studies of cognitive or conceptual role-taking, the ability to consider the mental predispositions or knowledge of another (Chandler, 1969; DeVries, 1970; Selman, 1971a, 1971b). Research on cognitive role-taking has been more limited, but several developmental studies have reported data for young children (Chandler, 1969; Feffer & Gourevitch, 1960; Flavell, et al., 1968; Selman, 1971a, 1971b). As with perceptual role-taking, these studies indicate that cognitive role-taking does not become fully functional until middle childhood, but shows rudimentary beginnings in the preschool year. Selman (1971b) has identified four levels of cognitive role-taking ability in young children (4 to 6):

> **Level A:** Child may have sense of other, but fails to distinguish between the thoughts and perceptions of other and self.
>
> **Level B:** Child's sense of self is distinguished from other, but he fails to see any commonality of thoughts between self and other.
>
> **Level C:** Child attributes his own ideas to other because he hypothetically puts himself in other's position but sees other as having interests similar to his own.
>
> **Level D:** Child is aware that other has perspectives based on his reasoning which may or may not be similar to his own.

The later levels of Selman's schema are more differentiated but still not completely free of egocentric thought. Thus, while the child has begun to take into consideration the cognitive viewpoint of others he has not progressed to the stage of reciprocal role-taking.

Still another aspect of role-taking is affective role-taking or social awareness--the ability to consider the emotional or motivational state of another (Baldwin, 1969; Feffer, 1970; Flapan, 1968; Gilbert, 1969).

Empirical studies of affective role-taking indicate that young children have an elementary understanding of kindness (Baldwin & Baldwin, 1967), fairness (Schure, 1967), empathy (Burns & Cavey, 1957; Dymond, Hughes, & Raabe, 1956; Hoffman, 1971) and psychological causality (Whiteman, 1967).

In general, the picture that emerges is that some, but not all five-year-olds are able to take the role of another at an elementary level with respect to perceptual cognitive, and affective role-taking. Of the variables studied in the Irwin et al. studies, intentionality is the dimension most logically related to role-taking ability. From the Irwin and Hill (1971) data, we know that some but not all five-year-olds are able to make moral judgments concerning intentionality (with damage held constant), a distinction that involves consideration of the differing motives or intent of others. If Piaget and Kohlberg are correct in stating that moral development follows the development of role-taking skills, there should then be a sequential relation between moral development and role-taking such that children who make appropriate distinctions between accidental and intentional misdeeds are also advanced in role-taking skills. The present studies provide information relating to this hypothesis and ask further, which aspects of role-taking ability are most important for the development of moral judgments, i.e., is

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the ability to consider intent related to a global role-taking ability or to only one or two dimensions of role-taking.

Both moral judgment and role-taking are summary variables, comprised of a number of interrelated but discrete components. At the level of formal operations, when these components have become integrated, one might expect a child's moral stage as defined by Kohlberg to be related to general role-taking ability. At the stage of pre-operational thought, however, when the various components are still in an elementary stage of development, one would not predict that the summary variables would be highly related unless the components emerge at the same time and develop at the same rate. While we do not have any systematic longitudinal studies of role-taking or moral judgment from early childhood through adolescence, we do have evidence from a number of separate studies that indicates that this is not the case. For example, the Irwin and Hill (1971) and Irwin and Moore (1971) studies suggest that understanding of blameworthiness, restitution, and intentionality emerge at different ages in the young child. The work of Durkin (1959), Johnson (1963), MacRae (1954), and Piaget (1932) further indicate that concepts such as immanent justice, reciprocity, and moral realism not only develop at different times, but that the understanding of one dimension is necessary for the understanding of the next. Kohlberg's (1963) theory is built on the same premise.

Concerning role-taking, Flavell, et al. (1968) hypothesize that "The recognition of perspective differences (is) less probable when the perspectives in question consist of cognitions, motives, feelings, affects and the like rather than percepts, especially visual percepts (p. 181)." The work of Dymond, Hughes, and Raabe (1952) lends support to this hypothesis. Although Flavell, et al., predict that perceptual role-taking is an easier task for

young children than affective or cognitive role-taking, and therefore would presumably occur earlier in the child's development, one would hypothesize that the more social aspects of role-taking, i.e., affective and cognitive role-taking, would be more strongly related to moral judgment components.

While the present study makes no attempt to investigate the developmental sequence of role-taking behaviors, it would be interesting to know if role-taking follows the same sequence as moral judgment in that the child moves from the external-objective to the internal-subjective. This would be consistent both with Piaget's notion that the child's interpretation of events outside of himself "begin with surface manifestations and only gradually move into the psychological interior" (Flavell, 1970, pp. 1026), and with the Flavell et al. hypothesis that perceptual role-taking preceeds other role-taking dimensions. Thus, it may be that perceptual role-taking occurs developmentally before affective or cognitive role-taking, but that the latter are more related to moral understanding.

As part of a larger investigation on the relation between moral judgment and role-taking in young children, data from two studies will be presented.

STUDY I

This study was designed to examine the relation between moral judgment and role-taking in middle and lower-class children. Affective, cognitive and perceptual role-taking were studied in relation to four dimensions of moral judgment--blameworthiness, restitution, intentionality, and intent-consequence.

Methods

The sample consisted of 30 lower-class five-year-olds and 30 middle-class five-year-old subjects drawn from two nursery schools serving middle-class children and three day care centers serving lower-class children in the Minneapolis-St. Paul area. Each group included 15 girls and 15 boys. The children ranged in age from 60 to 70 months with a mean age of 64.5 months. All of the children in the sample were Caucasian.

Role-Taking Tasks

In the perceptual tasks the child was asked to predict a visual perspective different from his own. To do this successfully he had to be able to cope with the impact of his own perspective in considering the visual viewpoint of another.

Perceptual Task 1. The materials in this task are similar to those described by Flavell (1968) and consist of two identical six-inch wooden cubes each having a different line drawing on each of four vertical faces. The child is given one block, shown that it is the same as the experimenter's, and then asked to: 1) turn his block so that he sees the same drawing or his block that the experimenter seated across the table sees, and 2) to answer two questions: What picture do you see on your block? What picture do I see on my block? This procedure is repeated until all four pictures have been shown.

The responses were analyzed according to the subject's block placement and his answer to the second inquiry questions. A score of 1 was given for each correct placement and query answer, yielding a total range of 0 to 8.

Perceptual Task 2. This task was developed by Tanaka (1966). It is related to Piaget's Three Mountain problem but depicts situations more familiar

to the child. The materials consisted of four 8½ x 11 inch cards. At the top of each card is a picture of two children, at the bottom are four pictures of one of the children, each picture representing the child from a different perspective (See Fig. 1). Pointing to the stimulus picture the experimenter says: "Tom is looking at Mary. These four pictures (pointing to bottom pictures) are pictures of Mary from different sides or angles. Which of these pictures shows us what Mary looks like from where Tom is standing? What does Tom see when he looks at Mary?" The remaining cards showed a front, top, and side perspective.

Responses were scored as either Correct, Egocentric, or Other, the Correct response receiving a score of 1, the Egocentric* and Other responses receiving 0.

In the cognitive tasks the child was asked to consider the information that another person has access to when that information is discrepant from his own. To do this successfully, he must be able to set aside certain key pieces of information available to himself but not to the person whose role he was asked to assume. Scores on these tasks should thus reflect qualitative differences in ability to shift cognitive perspective--to set aside one's own perspective and assume a different cognitive set.

Cognitive Task 1. One of the most widely used cognitive role-taking tasks is the Apple Tree Story developed by Flavell and his associates (1968). In Flavell's task the child is asked to tell a story about a series of seven pictures depicting a boy who is being chased by a dog, runs down the street,

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* It could be argued that the child who chose an Other response is developmentally more mature than the child who chose an Egocentric response in that he recognizes that the correct stimulus persepctive (i.e., how Mary looks to Tom) is different than his own perspective of Mary, but is unable to determine the exact relation between Tom and Mary. While Flavell (1968) and Kingsley (1971) offer some support for this hypothesis, it was decided not to weigh Other responses more than Egocentric ones, but just to record them as separate categories so that they could be reanalyzed later.

climbs an apple tree, and then eats an apple as the dog trots away. The three pictures involving the angry dog are then removed and the child is asked to tell the story again as a co-experimenter (who is then called into the room) would tell it if he were to come over and look at the four cards. The pictures are constructed so that the seven-picture sequence suggests one story theme, while the four-picture sequence suggests quite a different theme. The only modification made for the present study was that the child was asked to tell the story again as another child (who was being tested on other tasks at another table) would tell the story if he were to come over and look at the pictures. The appearance of the second person is thus hypothetical rather than actual. To specifically assess the way the child handles this change of set, he was asked the following questions upon completion of the second story: "Why does (name) think the boy climbed the tree? What does he think about the dog (pointing to card 6)?"

The scoring categories were taken from Selman's (1971) adaptation of the Flavell procedure. A score of 1 was given to subjects who could not perform any transformation of the original story, i.e., in both accounts the angry dog was spontaneously offered as the motivational force behind the boy's climbing the tree. A score of 2 included subjects who could tell a straightforward, four-card perceptually correct story, but who were unable to maintain this perceptual image presentation upon being questioned about the motivational conditions of the four-picture story. A 3 was awarded to subjects who could both successfully tell the four-card story and maintain this set upon questioning.

Cognitive Task 2. This task was adapted from a measure developed by Chandler (1969) which attempts to combine the strengths of both Flavell's dual story technique and Feffer's (1959) TAT story elicitation. It follows Flavell's strategy in that it engineers the information available to the child so as to

guarantee that there are different perspectives built into the story, but, as with Feffer's TAT stories, builds the second person (whose role the subject is to adopt) into the story itself.

Chandler outlined a rather precise prescription that required that the main story character complete a sequence of behaviors, in which the end of the sequence would make little sense without knowledge of the preceeding acts. An onlooker, who witnessed only the end of the sequence, and thus was not privy to the antecedent events, was built in as the person whose role the subject must assume.

The present task differs from Chandler's methodology in that the onlooker, whose role the subject was to adopt, was built into the story at the beginning rather than the end of the story. Thus an event would happen to the central character that would provide the story onlooker with information that would yield a reasonable conclusion at the end of the story. The onlooker would then leave the scene, during which time something different would happen to the central character. When the onlooker returned, he would see an activity that was contingent on the event occuring while he was gone, but not incongruous with the information he had acquired before he left. The following story was developed for this study:

> Gary and Craig were playing with their airplanes one day when they spotted their friend the mailman coming down the street. The boys ran over to see him, but while Gary was talking to the mailman, Craig took his airplane. Soon Gary was chasing Craig down the street trying to get back his plane. The mailman watched them for a minute, then went down the street (in the opposite direction) to deliver the rest of his mail. Gary ran after Craig shouting, "Give me back my plane or I'll pound you." Craig just shouted back, "You'll have to catch me first." The chase went on and Gary had almost caught Craig when he tripped and fell and skinned his knee. It hurt a lot and he started to cry. Just then the mailman came around the corner from delivering mail to the Jones'. What did the mailman think made Gary cry?

The children in this study were asked to indicate how the onlooker would interpret the end of the story. If the child was able to successfully take on the mailman's role, he would answer that Gary was crying because Craig took his airplane, realizing that the mailman would not know that Gary had skinned his knee (the picture showed Gary crying and Craig standing beside him with an airplane in each hand, since Gary had long pants on and they were not rolled up, the skinned knee was not shown.) A score of 2 was given to subjects who made this response. If, on the other hand, the child was not able to suppress the additional information that he had concerning the events that occurred in the mailman's absence, he would respond that Gary was crying because he fell down and skinned his knee. A score of 1 was given for responses that indicated such egocentric perspectives.

Cognitive Task 3. This task was similar to Cognitive Task 2 in that the onlooker was introduced at the beginning of the story, but differed in that he was asked to make a judgment that did not follow from information that he had earlier. Instead he had to make a decision based on what he saw at the end of the story. It differed from Chandler's basic formula in that what he saw yielded a reasonable conclusion. As with the previous story, the subject had access to information that would yield a different response than what the onlooker would give based on the limited information available to him. As with Cognitive Task 2, the non-egocentric response received a score of 2 and the egocentric response a 1.

Cognitive Task 4. In the preceeding cognitive role-taking tasks, the child was asked to consider the information that another person had available to him and to make a judgment that would be an appropriate deduction based on that information. In each of the tasks the subject was provided with more information than the person or story character whose role he was asked to adopt, so that he had to set aside his own perspective to correctly respond to the situation. In this task, the child was not asked to discount his own information, but rather to consider other individual's perspective in addition to his own. Instead of having a definite story with a prescribed sequence of events, clearcut roles, and explicit knowledge of information, the subject was asked to take the other individual into account by predicting his behavior in an actual situation. To do this the child had to be able to employ recursive thought--what Miller, Kessel and Flavell (1970) describe as thinking about what another individual is thinking about.

The procedure utilized was a simple binary-choice guessing game used by Gratch (1964) and DeVries (1970). The child was shown a penny and told that the experimenter was going to hide it behind her back in one of her hands. Closed fists were then presented to the child and he was asked to "Guess which hand the penny is in." This was done for a series of ten trials. Then the child was invited to hide the penny for another ten trials. On the first six guessing trials, the experimenter had a penny in each hand, thus the child experienced positive reinforcement on each trial. On the next three trials, the experimenter had a penny in neither hand, resulting in negative reinforcement. Positive reinforcement was again provided on the final trial. When the child acted as hider, the experimenter attempted to guess incorrectly as much as possible. This was accomplished successfully most of the time by using the child's guessing response pattern to predict his hiding response pattern. For example, if a child perseverated in guessing, the experimenter

would guess on the first trial (facial cues and gestures from the subject often aided) and if his guess proved incorrect, would perseverate on that hand. If the subject alternated in guessing, the experimenter would alternate in guessing, using the first trials to establish which was the incorrect hand. The experimenter was thus able to correctly predict the incorrect hand about 85% of the time.

DeVries developed a 10-point scale, cumulative in nature, that reflects the subjects ability to perform both guesser and hider roles. Only the first six guessing trials were used in assessing the child's ability to adopt the guesser-role perspective, as these trials represent the success trials and should therefore reflect the child's spontaneous projection of game strategy. A child's score was the highest item passed on the DeVries scale.

The affective tasks relate to a more figurative or metaphoric meaning of role-taking in that they refer to feelings or attitudes. The child was asked to interpret how people would feel in various situations and to select situations that would be appropriate antecedents to various emotional states. There was no visual standard to cope with as in perceptual role-taking, i.e., the subject did not have his own perspective to compete with, nor was there a discrepancy in information available to the subject and the one whose role he was to assume as in the cognitive tasks.

Affective Task 1. There have been a series of studies from Gates (1923) and Walton (1936) to Gilbert (1969) that have investigated the child's ability to correctly identify emotional expressions. This task was essentially the same as those reported in these studies except that line drawings were used in place of photographs or TAT pictures. The subject was shown five full body, 3 x $4\frac{1}{2}$ inch pictures, one at a time and asked "how does this (boy, girl, lady) feel?" The pictures portrayed feelings of: sadness, tiredness, happiness, puzzlement, and anger.

The subject received a score of 1 for every appropriate answer given and a score of 0 for each answer that was clearly inappropriate. As with all the affective tasks, the cards were tested on a group of 25 adults to establish a range of acceptable responses, i.e., words that conveyed the "feeling" of the picture.

Affective Task 2. One of the skills necessary for making appropriate judgments about how a person feels is the ability to "read" a feeling or emotional state from the situational cues surrounding it. A person shown crying may be crying out of sadness, happiness, frustration, or pain. We infer which of these states it is from other factors in the environment. In this task, the environmental factors were explicated through pictures and stories.

The child was shown an illustration in which the face of the central character was left blank. A brief story was told to the child, and he was then shown a second card which had three head to waist illustrations of the central character. Each picture portrayed a different facial expression, one clearly appropriate, one clearly inappropriate, and the other neutral or nonexpressive. The child was shown the three pictures and asked to show the experimenter which picture showed how the central character felt in the story. The feelings or expressions tapped in this task were: suprise, anger, fright, happiness, and disbelief or amazement.

Unlike affective task 1, there was only one acceptable answer for each item in this task. The responses were scored as either 1 or 0 for appropriate and inappropriate answers respectively.

Affective Task 3. This task is simply the reverse of Affective Task 2. Instead of identifying a situation and asking the subject to select the appropriate emotional reaction, he was shown an expression and asked to identify an appropriate social antecedent. The other four emotions illustrated in this task were: happiness, suprise, anger, and sadness.

As with Affective Task 2, there was only one clearly appropriate answer for each item, and each item was scored wither 1 or 0.

Moral Judgment Stories

Twelve illustrated stories, developed and refined in three previous studies (Irwin & Moore, 1971, Irwin & Hill, 1971), were used to assess the child's understanding of social justice. There were three stories in each of four categories: Blameworthiness--stories involving situations in which one child was guilty of a transgression or misdeed and another was innocent; Restitution--stories where one character attempts to restore the damage done and the other does not; Intentionality--stories involving one character who commits a transgression accidentally and another who transgresses intentionally, and Intent-Consequence--stories where one character does more damage while executing a good deed than the other does in the course of a misdeed.

After each story the interviewer asked the child which of the characters the victim was most angry at, which should be punished the most, or which was the naughtiest. In each case choosing one story character represented a conventional "just" decision. Since the child's response was a forced-choice one between predetermined just and unjust story endings, there was no need for concern over rater reliability in judging a child's response at just or unjust.

Care was taken to equate the characters within each story so that extraneous elements such as prominence in the story, size of figure drawings, and friendliness or angriness of facial expression would not bias the child's choice. The events in each story were depicted in two, three, or four illustrations depending upon the complexity of the sequence of events.

The story format developed for this study differs from that used by Piaget in several ways. Piaget used a paired-story verbal-choice technique which

requires the child to remember the events of two separate stories and compare them. In this study, the child's response is made following a single story. Also, the stories are illustrated and do not require a verbal response from the child since he can indicate his response by pointing if he wishes.

The subjects were presented one of each of the four types of stories until three such sets had been presented. Stories were counterbalanced for order or presentation within each group of four stories, and forthe order in which just and unjust story characters were mentioned in presenting the sequence of events to the child.

In scoring responses to the individual stories, "just" responses were given a value of 1 and "unjust" responses, 0. It was thus possible to obtain a score of 0 to 3 in each of the four categories, and 0 to 12 for the total battery of stories.

Results

Three kinds of information can be drawn from this study: findings on the relation between moral judgment and role-taking, analysis of the four moral judgment dimensions, and analysis of the three role-taking dimensions.

Moral Judgment Related to Role-Taking

It was hypothesized that there would be a positive relation between moral judgment and role-taking and that the affective and cognitive areas of role-taking would show the strongest relation to moral judgment. A Spearman Rho indicates that when one sums across the moral judgment and role-taking areas for the total sample, the two have only a slight nonsignificant relation, .16 which reduced to .12 with IQ partialed out. When one looks at the data by class-sex subgroups, both lower-class and middle-class girls show low positive correlations .29 and .39 ($p < .10$) respectively, while lower-class and middle-class boys show low negative but nonsignificant correlations of -.16 and -.35 respectively. While these correlations are not statistically

reliable, they do suggest that there may be a different relation between moral judgment and role-taking for boys than for girls at this stage of development.

Due to the large number of ties in individual role-taking areas (affective, cognitive and perceptual), it was not feasible to correlate these subscores with moral judgment scores.

A related question is to ask how those subjects who score at the tope of the role-taking range and can therefore be identified as "role-takers" relative to their peers, score on moral judgment. If Piaget and Kohlberg are correct in stating that role-taking is a necessary prerequisite for moral judgment, then children high on moral judgment should also be high on role-taking, while children high on role-taking may or may not be high on moral judgment.

If one looks at the children who score high on moral judgment, a chi square analysis revealed that girls and middle class children who scored in the upper third on moral judgment scored in the upper one-third on role-taking significantly more often than would be expected by chance ($p < .001$, $p < .05$ respectively, Table 1). Analysis of the individual role-taking categories indicated that the degree of association was due largely to the cognitive tasks.

The overall correlation between IQ and role-taking was .23 ($P < .05$) and between I Q and moral judgment .15 (see Table 2). The positive correlation between IQ and role-taking was due largely to a substantial correlation between IQ and role-taking for middle-class boys ($r = .62$, $p. < .01$).

Moral Judgment Stories

One way to analyse the total moral judgment scores is to identify children who are "Just" (those making more than 50% just responses overall categories) and children who are "Unjust" (those making 50% or fewer just responses). For this analysis, subjects scoring 0-6 were classified as Unjust and subjects scoring 7-12 were classified as Just. The chi square comparing Just and Unjust children indicate that all groups of children were significantly more Just than Unjust on total moral judgment (see Table 3).

TABLE 1

CHI SQUARE TEST OF INDEPENDENCE FOR CHILDREN SCORING IN THE UPPER THIRD ON MORAL JUDGMENT BETWEEN DIFFERENCES IN NUMBER OF CHILDREN SCORING IN THE UPPER THIRD OR LOWER TWO-THIRDS ON ROLE-TAKING FOR CLASS AND SEX SEPARATELY

ROLE TAKING DIMENSION	LOWER 2/3	UPPER 1/3	X^2
Total Role Taking			
Lower class	4	3	2.86
Middle class	3	6	4.50[a]
Girls	2	9	11.64[d]
Boys	5	1	.75
Affective Role Taking			
Lower class	7	1	1.57
Middle class	3	6	4.50[a]
Girls	6	6	1.50
Boys	4	1	3.58
Cognitive Stories			
Lower class	0	8	16.04[d]
Middle class	0	9	9.00[c]
Girls	0	12	24.00[d]
Boys	0	5	10.04[c]
Cognitive Game			
Lower class	2	5	4.58[a]
Middle class	3	7	6.06[b]
Girls	5	8	4.66[a]
Boys	0	4	8.02[c]
Perceptual Role-Taking			
Lower class	4	4	1.00
Middle class	4	6	3.20
Girls	5	7	3.38
Boys	3	3	.75

a = $p < .05$ b = $p < .02$ c = $p < .01$ d = $p < .001$

TABLE 2

SUMMARY OF SPEARMAN RHO CORRELATIONS: RELATION BETWEEN IQ AND THE MORAL JUDGMENT AND ROLE-TAKING MEASURES AS A FUNCTION OF CLASS-SEX

VARIABLES RELATED	LOWER CLASS		MIDDLE CLASS		TOTAL
	Girls	Boys	Girls	Boys	
Mean IQ:	108.2	103.3	110.8	116.4	109.7
Role-taking and IQ	.00	.01	.00	.62[b]	.23[a]
Moral judgment and IQ	.31	.25	.31	-.13	.15

a = $p < .05$

b = $p < .01$

TABLE 3

CHI SQUARE TEST OF INDEPENDENCE BETWEEN DIFFERENCES IN NUMBER OF CHILDREN SCORING AS JUST AND UNJUST OVER ALL MORAL JUDGMENT CATEGORIES AND WITHIN EACH OF THE FOUR MORAL JUDGMENT CATEGORIES FOR CLASS AND SEX SEPARATELY

MORAL JUDGMENT DIMENSION	NUMBER JUST	NUMBER UNJUST	X^2
Total Moral Judgment (split-half)			
Lower class	23	7	8.53[c]
Middle class	22	8	6.53[b]
Girls	22	8	6.53[b]
Boys	23	7	8.53[c]
Blameworthiness			
Lower class	28	2	22.52[d]
Middle class	26	4	16.12[d]
Girls	27	3	18.16[d]
Boys	27	3	18.16[d]
Restitution			
Lower class	22	8	6.53[b]
Middle class	24	6	16.12[d]
Girls	26	4	16.12[d]
Boys	20	10	3.33[a]
Intentionality			
Lower class	26	4	16.12[d]
Middle class	19	11	2.12
Girls	20	10	3.33[a]
Boys	24	6	16.12[d]
Intent-Consequence			
Lower class	12	18	1.20
Middle class	17	13	.52
Girls	15	15	.00
Boys	14	16	.12

a = $p < .10$

b = $p < .02$

c = $p < .01$

d = $p < .001$

A similar chi square analysis was done for each justice category individually in which subjects scoring 0 or 1 were classified as Unjust while subjects scoring 2 or 3 were classified as Just (see Table 3). All of the subgroups of subjects were found to be significantly more Just than Unjust on the dimensions of blameworthiness and restitution, lower-class children and boys had chi square values significant at the .001 level of confidence on intentionality, while girls showed a trend toward significance on intentionalith with a confidence level of .10. None of the groups gave more Just than Unjust responses on the intent-consequence dimension.*

It is also possible to compare the performances of subgroups of children to see which groups gave more Just responses and which gave fewer relative to their peers. Comparisons of the performances of groups of children by sex and class were made using an analysis of variance developed by Hsu and Feldt (1969) for use with measures that yield a limited number of score values. In this analysis there were no sex or class effects or interactions based on the total moral judgment scores; however there was a significant sex effect in the restitution category with girls scoring higher than boys ($p < .05$), and a significant class effect in the intent-consequence category with the middle-class scoring higher than the lower class ($p < .05$). There were no significant class by sex interactions (see Table 4).

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* This is in agreement with earlier studies on middle-class children (Irwin and Moore, 1971; Irwin and Hill, 1971) where five year olds were found to be significantly more just than unjust on understanding of guilt-innocence (blameworthiness), restitution, and intentionality not confounded by degree of damage, but showed no difference in just and unjust responses on intent-consequence.

TABLE 4

ANALYSIS OF VARIANCE OF MORAL JUDGMENT SCORES

SOURCE	df	SS	MS	F
Total Moral Judgment				
Sex	1	7.35	7.35	2.01
Class	1	.81	.81	.22
Class x sex	1	1.35	1.35	.37
Within	56	204.67	3.65	
Blameworthiness				
Sex	1	1.06	1.06	1.68
Class	1	.26	.26	.41
Class x sex	1	1.08	1.08	1.71
Within	56	35.33	.63	
Restitution				
Sex	1	2.40	2.40	4.62*
Class	1	1.07	1.07	2.06
Class x sex	1	.60	.60	1.15
Within	56	29.33	.52	
Intentionality				
Sex	1	.15	.15	.19
Class	1	2.81	2.81	3.51
Class x sex	1	.02	.02	.03
Within	56	45.00	.80	
Intent-consequence				
Sex	1	.26	.26	.28
Class	1	4.26	4.26	4.53*
Class x sex	1	2.41	2.41	2.56
Within	56	52.40	.94	

* = $p < .05$

A further question is the relation of the child's understanding of intentionality with amount of damage equal to his understanding of the Piagetian intentionality where one character does more damage in the course of a good deed than the other does in the course of a misdeed. One would hypothesize that an understanding of the first kind of intentionality would proceed understanding of the second. If this is true (that intentionality is a prerequisite for intent consequence) then subjects high in intent consequence should also be high in intentionality, while subjects high in intentionality may or may not be high in intent consequence. The findings summarized in Table 5 suggests that for the group as a whole there is a developmental progression in the child's understanding of intentionality, and that understanding the difference between accidental and intentional transgression with damage equal may be a prerequisite for the more complex understanding of the role of intent when the consequences vary. The relation also holds for middle-class children and for boys alone.

Role-Taking Tasks

One way to analyze the role-taking scores is to identify children who are "role-takers" and those who are "non-role-takers." For this analysis, subjects who got at least 75% of the items correct were classified as role-takers. The chi square comparing role-takers and non-role-takers indicate that the group as a whole performed more effectively than would be expected by chance. Of the individual groups, the chi squares indicate that middle class children and girls can be regarded as role-takers ($p < .01$ and $p < .05$ respectively). If one looks at the individual role-taking categories, all of the subgroups gave significantly higher role-taking scores than would have been expected by chance in both affective and cognitive role-taking. None of the groups gave a significant number of role-taking responses to the perceptual tasks (see Table 6). Therefore, the good performance of subjects in role-

TABLE 5

CHI SQUARE TEST OF INDEPENDENCE FOR CHILDREN SCORING 2 OR 3 ON INTENT-CONSEQUENCE BETWEEN DIFFERENCES IN NUMBER OF CHILDREN SCORING 0-1 OR 2-3 ON INTENTIONALITY FOR CLASS AND SEX SEPARATELY

SUBGROUP	INTENT SCORE		X^2
	0-1	2-3	
Lower Class	3	9	3.00
Middle Class	4	13	4.76[a]
Girls	4	11	3.27
Boys	3	11	4.57[a]
Total (N = 29)	7	22	7.76[b]

a - $p < .05$ b = $p < .01$

TABLE 6

CHI SQUARE TEST OF INDEPENDENCE BETWEEN DIFFERENCES IN NUMBER OF CHILDREN SCORING AS ROLE-TAKERS AND NON-ROLE-TAKERS OVER ALL ROLE-TAKING CATEGORIES AND WITHIN EACH OF THE THREE ROLE-TAKING CATEGORIES FOR CLASS AND SEX SEPARATELY

ROLE TAKING DIMENSION	NUMBER OF ROLE-TAKERS	NUMBER OF NON-ROLE-TAKERS	X^2
Total Role Taking			
Lower Class	8	22	.04
Middle Class	15	15	10.00[c]
Girls	13	17	4.37[a]
Boys	10	20	1.10
Total	23	37	5.68[a]
Affective Role-Taking			
Lower Class	13	17	4.37[a]
Middle Class	25	5	54.41[d]
Girls	20	10	27.77[d]
Boys	18	12	19.60[d]
Total	38	22	47.01[d]
Cognitive Role-Taking			
Lower Class	22	8	37.37[d]
Middle Class	19	11	23.50[d]
Girls	20	10	27.77[d]
Boys	21	9	32.40[d]
Total	41	19	73.86[d]
Perceptual Role-Taking			
Lower Class	6	24	.40
Middle Class	11	19	2.17
Girls	7	23	.40
Boys	10	20	1.00
Total	17	43	.35

a = $p < .05$ b = $p < .02$ c = $p < .01$ d = $p < .001$

taking was due to their score on the affective and cognitive tasks, not perceptual tasks.

The role-taking performance of groups of subjects were also compared with each other to assess whether or not children performed differently as a functon of sex or class. There were no main effects or interactions using the total role-taking scores (see Table 7). Among the individual role-taking categories, only the affective category yielded significant Fs. For that category there was a main effect of class with middle-class children scoring higher than lower class children ($p < .05$). A significant class by sex interaction ($p < .05$) would suggest that the class differences may be due largely to the performance of boys since the lower class boys received the lowest scores and the middle-class boys the highest scores of any subgroup.

TABLE 7

ANALYSIS OF VARIANCE OF ROLE-TAKING SCORES

SOURCE	df	SS	MS	F
Total Role-taking				
Sex	1	48.60	48.60	2.09
Class	1	1.06	1.06	.05
Class x sex	1	.00	.00	.00
Within	56	1305.07	23.30	
Cognitive				
Sex	1	7.35	7.35	2.09
Class	1	10.41	10.41	2.97
Class x sex	1	2.82	2.82	.80
Within	56	196.40	3.51	
Affective				
Sex	1	7.35	7.35	1.39
Class	1	30.82	30.82	5.83*
Class x sex	1	22.81	22.81	4.31*
Within	56	296.27	5.29	
Perceptual				
Sex	1	.06	.06	.01
Class	1	.00	.00	.00
Class x sex	1	3.27	3.27	.29
Within	56	632.00	11.29	

* = $p<.05$

DISCUSSION

The data analyzed for this study indicate that five-year-olds generally did better than chance on both total moral judgment and total role-taking. All four subgroups performed better than chance on total moral judgment, Blameworthiness and Restitution and all but middle-class children did so on Intentionality. None of the subgroups did well on Intent-Consequence.

The picture was somewhat more variable with role-taking. Middle-class children and girls performed better than chance on total role-taking. All of the subgroups performed better than chance on affective and cognitive role-taking. None did so on perceptual role-taking.

The fact that five-year-olds cannot handle Intent-Consequence or perceptual role-taking was not surprising. Studies on Piaget's Intentionality (Intent-Consequence in this study, Boehm, 1962; Johnson, 1962; MacRae, 1950) as well as studies contrasting Piagetian Intentionality with intent not confounded by damage (Armsby, 1971; Gutkin, 1972; King, 1971) all indicate that understanding of Intent-Consequence does not emerge until about age seven or eight. Work by Flavell (1968), Tanaka (1966) and others also indicate that the child does not gain competence at perceptual role-taking until after the age of seven and for some perceptual tasks, not until 9 to 11 years of age. Both findings are usually discussed in terms of

childish egocentricism and the decentering process. Other factors such as experential components, and task complexity may also be related as will be discussed later in this chapter

Moral Judgment and Role-Taking

In retrospect it is not surprising that the correlation between total scores on moral judgment and role-taking was low when one considers the broad range of concepts tapped by these two summary variables. While affective, perceptual, and cognitive role-taking dimensions all demand that the subject in some way take on the persepctive of another, the tasks developed for these three areas all look at very different pieces of the role-taking puzzle.

Perceptual role-taking demands that the subject relate first to an object, either dimensionally or representationally, then think about that object in terms of how another would perceive it if he were regarding it from a different perspective. The emphasis here is not so much on the other person as on the subject turning the object around in his mind's eye, on mentally manipulating the physical object. In affective role-taking, the subject is required to get inside of another and donne his emotional fiber, to adopt the heartbeat and adrenalin of the other. Both of these areas demand that the subject use all of the information available to him. The cognitive stories on the other hand ask the subject to get inside the head of another and in so doing to either forget or supress what is inside of his own

head. The penny guessing game demands that the child consider what the other will do and how his own actions will affect the actions of the other (reciprocal role-taking).

Moral judgment poses the same dilemma; all four of the moral judgment areas seek to investigate a smaller aspect of the child's more general understanding of the distinctions necessary to make higher level decisions in situations of moral conflict. The four areas, however, do not inherently tap into the same morality bag. Understanding the notion of blameworthiness demands that the child can make basic distinctions between the story characters' actions, and that he has learned to assign some socially sanctioned value to their deeds.

Restitution, on the other hand, asks the child to decide, Blameworthiness being equal, which person deserves the most punishment or anger when what they do after transgression is not equivalent. Intentionality goes even further and asks the subject to consider, consequence being equal, the person's motive in doing his mischief. This is a subtle distinction which becomes even more complicated when differing consequences are added to the situation, for then the subject must cope with discrepancies that pull in opposite directions, i.e., it is better to do a misdeed accidentally than on purpose, but it is also better to do a little wrong than a big wrong.

Piaget (1932) and Kohlberg (1969) both state that role-taking is a necessary prerequisite for moral judgment, but neither delineates what kind of role-taking is required, nor for which areas of moral judgment it is important. From the

discussion above, one would predict that the more social-cognitive dimensions of role-taking, affective and cognitive role-taking, would be most logically related to moral judgment as they center on the child's ability to perceive another's feelings, motivations, and thoughts.

Moral judgment itself can be divided into two major areas, Restitutive or Retributive justice, dealing with the system of rewards and punishments dispensed when a wrong doing has occurred or the laws of society have been violated, and Distributive justice dealing with how the goods and services of society are to be divided. Role-taking should logically be required for both as one must consider the perspectives of all the parties involved in making decisions about punishment, sharing and fairness. This study investigated some of the more basic considerations one must take account of in Restitutive or Retributive justice. It is possible that of the four dimensions explored here, not all require role-taking ability on the part of the child. Blameworthiness, or the assignment of guilt (in the legal, not psychoanalytic sense) has been identified as the first of these dimensions to emerge developmentally (Irwin and Moore, 1971; Irwin and Hill, 1972). Blameworthiness does not require the subject to actively consider the roles of both culprit and victim, however, only to identify who the culprit is. Restitution demands that the subject consider two individuals simultaneously, but again focuses on identifying what they did after transgressing. It may be that role-taking is not of as

great importance for these two dimensions as it is in Intentionality where the differences are in motivation prior to the misdeed rather than in response to the misdeed. Intent-Consequence involves even more consideration of the difference in roles as both motivation and consequence vary. The nature of the moral judgment scores do not allow us to look at the relation of the various role-taking tasks to the individual moral judgment subcategories, but we can see which role-taking areas relate to total moral judgment scores.

There is little evidence for a general hypothesis that role-taking is a necessary prerequisite for moral judgment. While children high in moral judgment do tend to be high in role-taking (as is indicated by the scores of middle-class children and girl subgroups in table 2) the reverse is also true--for middle-class and lower class children and for girls (table 1). The relation would seem to reflect the overall positive correlation between these two variables for the girls in the sample. There is, however, one indication of support for a "prerequisite" hypothesis; for all subgroups of children, those high in moral judgment did well on the cognitive stories and game (see table 2). This was true for boys as well as for girls despite the fact that for boys, overall moral judgment and role-taking were negatively correlated. It would seem that some sophistication in cognitive role-taking may be a prerequisite for competency in moral judgment.

Selman (1971a) found that role-taking was a necessary but not sufficient condition for moral judgment during middle-childhood. The present study suggests that further study is needed with regard to the ontological development of these two concepts in relation to each other.

The Role of IQ in Role-taking and Moral Judgment

IQ played but a minor role in the correlation between role-taking and moral judgment (.04 of the total correlation), which was a little surprising as IQ has been found to be positively correlated with both role-taking and moral judgment with older children. IQ was unrelated to role-taking for lower-class children and middle-class girls, but showed a substantial correlation for middle-class boys (.62). The mean IQ for middle-class boys was seven points above the sample mean, indicating that IQ may be related to role-taking only when the brighter chilren are heavily represented in the population, yet only eight of the 20 subjects with an IQ of over 116 scored in the top third on role-taking when data for the total sample is inspected.

Moral Judgment Dimensions

This study provides further support for earlier studies of moral understanding in young children. Five-year-olds seem to best understand the notion of Blameworthiness followed closely

by Restitution and to a lesser extent Intentionality. The Intent-Consequence category proved too difficult for all of the children in this sample. These findings lend support to the developmental findings of Irwin and Moore (1971) and Irwin and Hill (1971) that Blameworthiness emerges first in children followed by Restitution and Intentionality, and of Armsby (1971), King (1971) and Gutkin (1972) that an understanding of Intentionality precedes understanding of Intent-Consequence.

Intentionality was the only category that showed any differences between the subgroups. Lower-class children and boys understood the concept better than middle-class children and girls. It may be that lower-class children, because many of them must fend for themselves or take on responsibility for younger sibs more often than their middle-class counterparts, are forced to consider the intent of others more frequently on a day to day basis. Being responsible, and held accountable, for another child two or three hours a day or more is quite different from just playing with a sib for the same length of time. Although the sex difference was not as great, the same kind of "experience" factors could be involved. Boys rough-house and join in physical activity more than girls and may encounter situations where "I didn't do it," voiced in all earnestness by a to-be-pounded-upon child, drives the intent home a little closer.

If one looks at the individual stories in the Intentionality category, a significant difference emerges between the

stories that holds true for all subgroups. The story that received the highest number of just responses involved a case where the damage to the object was permanent; the glass was broken and could not be restored or repaired; it could however be replaced (providing it wasn't an antique from Aunt Sarah). Next in order was the story involving repairable damage; the clay boat could be repaired but it could not be restored to its original form. The story least understood was the one involving restorable damage; the puzzle could be put together exactly as it was before; the only thing lost was the time it would take to put it back together.

It is possible that, had all of the stories involved consequences of the magnitude of the first story, i.e., permanent damage, that more children would have done well on the Intentionality dimension. Perhaps something as minor as a puzzle being dumped out, accidentally or on purpose, is not enough to bother with. It seems likely that the child is guided by the face value of the consequences. Adults are more likely to look upon a broken glass with greater disfavor than a spilled puzzle, so it seems reasonable that when the child is asked to judge an objective situation (sans emotional impact or ego involvement) he would employ the magnitude-of-damage rule of thumb.

Intent-Consequence. The Intent-Consequence stories stood alone as incomprehensible to all of the subjects. The analysis of variance indicated a significant class effect for this dimension, with middle-class children scoring higher than lower-

class children. Neither group, however, seemed to understand the concept, or perhaps the criterion. It would be of interest to explore further the possibility that middle-class children actually do attain an understanding of Intent-Consequence before their lower-class counterparts. Studies by Boehm (1962), Boehm and Nass (1962), Johnson (1962), Lerner (1937) and MacRae (1954) suggest that this may be the case.

Role-Taking Dimensions

The data from this study suggests that affective and cognitive role-taking may emerge before perceptual role-taking in young children. All of the subgroups performed above chance in both areas while none of the subgroups performed above chance on perceptual role-taking. There are two factors that may account for this finding. The first relates to the child's own experience. Feelings and emotions are frequently labeled for the child by adults both in terms of the child's emotional state and how others feel about things. With regard to conceptual role-taking, the child is aware of his own cognitions, but also has other peoples' reasons verbalized for him by parents and teachers. This happens for all children to some extent, but perhaps most often for children whose parents use inductive child rearing techniques. It is seldom, however, that another's perceptual perspectives are labeled for the child.

A second factor may relate to the complexity of the various areas. A child's own feelings, emotions and thoughts do not

interfere with his ability to relate to another's feelings, emotions or thoughts as much as his physical perceptions do. In the latter area he always has his own visual perspective standing in front of him and he has to mentally push it aside and try to "see" the other person's visual orientation. Perceptual role-taking does not involve affect or relating to another's motives or thoughts; it is a mental manipulation of time and space. The child quite literally has to put himself in the place of another without relying on his own feelings or social experiences. To perform these tasks correctly, he has to be aware that the other would not see the same view he sees, form a mental picture of what the other's perspective would look like, and match the other's perspective with the correct picture.

The moral judgment dimensions follow the same pattern in terms of degree of complexity. Blameworthiness represents what may be the first step in acquiring judgmental abilities that can be called upon in making moral judgments--the notion of identifying an act as "wrong" and a person as responsible for its execution. Restitution, on the other hand, goes beyond the act itself and asks the child to make judgments about the efficacy of the transgressor's response to his wrongdoing when the response of the two transgressors is not the same. Intentionality involves yet another component; the child must recognize that a wrong has occurred and move beyond the external act (as in Restitution) to the internal motive. He must further consider the nature of the deed (misdeed or good deed). Intent-Consequence adds a further factor by varying the damage done.

Thus with both role-taking and moral judgment, there is a direct parallel between the concepts most easily understood by the child and the number of factors he must consider. The fewer the factors or less complicated the concept, the easier it is for the child to comprehend it and the better he performs on the related tasks.

STUDY II

The second study looked at age as a variable and investigated the relation between role-taking and moral judgment in five- and seven-year-olds. Affective cognitive and perceptual role-taking were studied in relation to the moral judgment dimensions of intentionality and restitutive justice. These two dimensions were selected from the eleven moral judgment dimensions discussed by Piaget for the following reasons: (1) There was evidence from research that they were developmental in nature, (2) they could be examined in the context of a single story presented in a simplified story format for young children, and (3) they were logically as well as structurally related to role-taking.

Method

The subjects of this study were 34 kindergarten and 38 second grade children from two suburban New York schools. Half of each group were girls--the other half boys. The mean age for the kindergarten Ss was 70 months. The mean age of the second grade children was 95 months.

Role-Taking Tasks

Most of the tasks used to assess role-taking were refinements of tasks used in Study I. Perceptual role-taking was assessed using the tasks developed by Tanaka (1966) described earlier. Two practice items were added and the task was lengthened from four items to eight items.

Conceptual role-taking was measured using two types of tasks. The first type consisted of four stories following the same format as used for cognitive Task 2 in Study I.

The second type of conceptual role-taking task was an elaborated hiding and guessing game originally developed by Flavel (1968) and refined by Kuhn

(1972). The subjects' task was to guess which of two boxes--a box with 10¢ in it or a box with 25¢--another child would choose. In the previous cognitive task the subject simply had to take the perspective of another (S→O). In this task the subject could demonstrate a higher level of role-taking by not only taking the perspective of another but also modifying his behavior accordingly. For example, in the guessing part of the game, the child could say that when it was his turn to choose he would choose the 10¢ box because the other fellow would think he would choose the most money and therefore take the money out of the 25¢ box to trick him. This kind of thinking can be indicated as S→O→S.

The Ss responses were tape-recorded and scored by stages outlined by Kuhn (1972). When there was a difference between the stage assigned to the hiding item and the stage assigned to the guessing item the subject's highest stage was used to represent his mode of thinking.

Affective role-taking was the same as the tasks used in Study I, with more items added and the format streamlined.

Moral Judgment Stories

There were eight illustrated moral judgment stories similar to those used in Study I. In half the stories both characters did the damage by accident, and in the other half one character did the damage by accident while the other did it on purpose. This was counterbalanced so that in half of the stories in each category the damage was equal, and in the other half the damage was unequal with the character doing the misdeed intentionally doing less damage (this is the classic Piagetian model referred to as Intent-Consequence in Study I).

After each story the subject was asked which character in the story was the naughtiest and why. Then he was asked to pick a punishment for the character he selected as naughty from one based on expiative or one based on restitutive justice.

Moral judgment stories were scored on Intentionality and Restitution. Subject's responses were scored as 2 points for "Just" choice and rationale, 1 point for an appropriate choice only, and 0 points for an inappropriate choice. Subjects who selected punishments based on restitutive justice were given 1 point and those who selected punishment based on expiative justice were given 0 points.

Results

The results of this study are presented in three parts: the first part is concerned with the relation between role taking and moral judgment, the second part focuses on the analyses of role-taking tasks and the last part describes the findings from the moral judgment analyses.

Relation Between Role-Taking & Moral Judgment

It was hypothesized that there would be a positive relation between total role-taking and moral judgment scores. This relation remained significant even with I.Q. partialled out (.30, $p < .01$). It was also hypothesized that there would be a stronger relation between role-taking and moral judgment for 7-year-olds than for 5-year-olds. This hypothesis was not supported since the correlation for 7-year-olds was lower (.06) than the correlation for 5-year-olds (.23).

A more refined analysis was done to determine the relation between types of role-taking and moral judgment (see Table 8). The analysis revealed that the most significant relation existed between cognitive role-taking tasks and moral judgment ($p < .05$ for the stories and $p < .01$ for the game).

TABLE 8

CHI SQUARE TEST OF INDEPENDENCE BETWEEN CHILDREN HIGH AND LOW ON MORAL JUDGMENT (MJ) AND THOSE HIGH AND LOW ON ROLE-TAKING (RT)

Variables	Observed	Expected	X^2	P
Moral Judgment and Role-Taking Totals				
High MJ-High RT	12	7.96	3.58	.10
High MJ-Low RT	13	17.04		
Low MJ-High RT	11	15.04		
Low MJ-Low RT	36	31.96		
Moral Judgment and Affective Role-Taking				
High MJ-High RT	10	6.93	2.88	.10
High MJ-Low RT	15	18.07		
Low MJ-High RT	10	13.07		
Low MJ-Low RT	37	33.93		
Moral Judgment and Cognitive Role-Taking (Stories)				
High MJ-High RT	14	9.72	4.72	.05
High MJ-Low RT	11	15.28		
Low MJ-High RT	14	18.28		
Low MJ-Low RT	33	28.72		
Moral Judgment and Cognitive Role Taking (Game)				
High MJ-High RT	21	15.96	6.75	.01
High MJ-Low RT	4	9.04		
Low MJ-High RT	25	30.04		
Low MJ-Low RT	22	16.96		
Moral Judgment and Perceptual Role Taking				
High MJ-High RT	9	8.32	.12	.80
High MJ-Low RT	16	16.68		
Low MJ-High RT	15	15.68		
Low MJ-Low RT	32	31.32		

If one looks at how the children who scored in the upper third in moral judgment fared on role-taking, a chi square analysis showed that high scores on moral judgment were significantly related to high scores on the cognitive role-taking stories for 7-year-olds ($p < .02$) and girls ($p < .001$), to the cognitive role taking game for 7-year-olds ($p < .01$) and boys ($p < .01$) and to perceptual role-taking for boys ($p < .05$). There were no significant relations for the 5-year-olds scoring in the upper third on moral judgment with any of the role-taking dimensions (see Table 9). This may be due to the small number of 5-year-olds who scored in the upper third of the total sample.

Role-Taking Tasks

It was hypothesized that 7-year-olds would have more role-taking skill than 5-year-olds. This hypothesis was generally supported by an analysis of variance yielding significant main effects for age in total role-taking ($p < .01$), affective role-taking ($p < .05$), and cognitive role-taking ($p < .001$). Perceptual role-taking had significant ($p < .05$) main effects for sex only (see Table 10). The failure to find age effects on perceptual role-taking may reflect the bimodal distribution of perceptual role-taking scores for the 7-year-olds.

The mean I.Q. on the Peabody Picture Vocabulary Test (PPVT) for the sample was 112. There were no significant differences among the mean I.Q.'s for subgroups divided by age or sex.

The correlation between role-taking andI.Q. for all the children was .51 ($p < .001$). This significant correlation was primarily due to the significant correlation for 5-year-old girls and 7-year-old boys.

TABLE 9

CHI SQUARE TEST OF INDEPENDENCE FOR CHILDREN SCORING IN THE UPPER THIRD ON MORAL JUDGMENT BETWEEN DIFFERENCES IN THE NUMBER OF CHILDREN SCORING IN THE UPPER THIRD OR LOWER TWO-THIRDS ON ROLE-TAKING FOR AGE AND SEX SEPARATELY

Role-Taking Subgroups	Lower 2/3	Upper 1/3	X^2	P
Total Role-Taking				
5 Years	1	0	.17	.70
7 Years	12	11	2.20	.20
Girls	8	5	.16	.70
Boys	5	6	2.25	.20
Affective Role-Taking				
5 Years	1	0	.17	.70
7 Years	13	10	1.08	.30
Girls	9	4	.04	.90
Boys	5	6	2.25	.20
Cognitive Role-Taking (Stories)				
5 Years	1	0	.17	.70
7 Years	10	13	5.62	.02 *
Girls	3	10	11.23	.001 *
Boys	8	3	.18	.70
Cognitive Role-Taking (Games)				
5 Years	0	1	1.36	.30
7 Years	4	19	9.78	.01 *
Girls	3	10	3.77	.10
Boys	1	10	7.36	.01 *
Perceptual Role-Taking				
5 Years	1	0	.17	.70
7 Years	14	9	.35	.70
Girls	11	2	1.91	.20
Boys	4	7	4.59	.05 *

TABLE 10

ANALYSIS OF VARIANCE OF ROLE-TAKING SCORES

Source	df	SS	MS	F
Total Role-Taking				
Age	1	283.57	283.57	8.85[b]
Sex	1	84.50	84.50	2.63
Age x Sex	1	1.90	1.90	.06
Within	68	2180.04	32.06	
Affective Role-Taking				
Age	1	51.65	51.65	6.19[a]
Sex	1	4.50	4.50	.54
Age x Sex	1	3.13	3.13	.37
Within	68	567.16	8.34	
Cognitive Role-Taking				
Age	1	73.23	73.23	30.41[c]
Sex	1	.68	.68	.28
Age x Sex	1	5.24	5.24	2.17
Within	68	163.73	2.41	
Perceptual Role Taking				
Age	1	1.20	1.20	.06
Sex	1	110.01	110.01	5.63[a]
Age x Sex	1	29.55	29.55	1.51
Within	68	1329.89	19.56	

[a] $p < .05$

[b] $p < .01$

[c] $p < .001$

Moral Judgment Tasks

An analysis of variance of moral judgment scores showed main effects of age for total moral judgment ($p < .001$) and intentionality ($p < .001$). This tends to support the hypothesized difference between 5-year-olds and 7-year-olds on moral judgment. However, the analysis of restitution scores indicated a significant ($p < .05$) age by sex interaction and no significant main effects due to age (see Table 11).

TABLE 11

ANALYSIS OF VARIANCE OF MORAL JUDGMENT SCORES

Source	df	SS	MS	F
Total Moral Judgment				
Age	1	1486.18	1486.18	68.51[c]
Sex	1	11.68	11.68	.54
Age x Sex	1	5.24	5.24	.24
Within	68	1475.22	21.69	
Intentionality				
Age	1	1215.16	1215.16	93.60[c]
Sex	1	10.89	10.89	.84
Age x Sex	1	9.10	9.10	.70
Within	68	882.85	12.98	
Restitution				
Age	1	13.63	13.63	2.43
Sex	1	.01	.01	.00
Age x Sex	1	28.14	28.14	5.02[a]
Within	68	380.87	5.60	

[a] p .05

[b] p .01

[c] p .001

The correlation between total moral judgment and I.Q. was .21 which showed only a borderline significance at the .10 level. Moreover, the correlation between moral judgment and I.Q. was not significant for any of the subgroups.

The item analysis of moral judgment tasks (see Table 12) indicated that the accident-accident category with unequal damage was the most difficult type of item for both age groups.

TABLE 12

DIFFICULTY LEVELS OF MORAL JUDGMENT ITEMS FOR EACH AGE GROUP AND INTENTIONALITY (I) AND RESTITUTION (R)

Moral Judgment Stories Variations	Items	Age and Dimensions 5 Years I	5 Years R	7 Years I	7 Years R
Accident-Purpose	2	.56	.73	.97	.95
Equal Damage	5	.47	.47	.92	.74[c]
Accident-Purpose	1	.26	.53	.63	.87
Unequal Damage	8	.44[a]	.56	.84[c]	.76
Accident- Accident	6	.41	.68	.97	.63
Equal Damage	7	.26[a]	.41	.97	.61
Accident-Accident	3	.23	.41	.84	.16
Unequal Damage	4	.09[c]	.68	.37[c]	.63

Note.--Levels of significance for difference in proportion.

[a] $p < .05$

[b] $p < .01$

[c] $p < .001$

Discussion

The present investigation of the relation between role-taking and moral judgment in young children found a significant correlation between these variables. The strongest relation was between cognitive role-taking and moral judgment. In addition 7-year-olds had higher scores than 5-year-olds on all areas of role-taking except the perceptual tasks, and 7-year-olds had higher scores than 5-year-olds on total moral judgment and intentionality but not on restitution.

Relation between Role-Taking and Moral Judgment

Although the significant correlation ($r=.36$, $p<.001$) between role-taking and moral judgment lends support to the theoretical notion that these variables are related, the relation was not significant when the sample was divided by age and sex. A more interesting analysis is the relation of specific dimensions of role-taking as they relate to moral judgment, especially since the various role-taking tasks were assessing quite different aspects of role-taking ability--affective role-taking required the child to understand the feelings of another, cognitive role-taking demanded that the child understand the knowledge of another and in the cognitive game modify his behavior on the basis of that knowledge, and perceptual role-taking required the child to comprehend the visual perspective of another. The results indicated that cognitive role-taking and to a lesser extent affective role-taking were most strongly related to moral judgment. This supports the findings reported in Study I, and it supports the idea that it is the social-cognitive aspects of role-taking that are more related to moral judgment rather than perceptual role-taking which is less dependent on social experience.

This study provides support for Selman's (1971a) thesis that role-taking is a necessary but not a sufficient condition for moral judgment and points out a weakness in the Selman study. Selman used only cognitive role-taking tasks and found a significant relation between role-taking and moral judgment. This study suggested that cognitive role-taking was indeed related to moral judgment, but further showed that affective role-taking was also related to moral judgment, while perceptual role-taking was unrelated. Role-taking, therefore, must not be discussed as only a summary variable but must be analyzed according to its individual dimensions.

There was a significant relation found between role-taking and intentionality but not restitution. It could be that intentionality requires more understanding of another's point of view than restitution.

Age and Sex Differences on Role-Taking and Moral Judgment

It is clear that there are developmental differences between 5- and 7-year-olds on cognitive and affective role-taking as well as the intentionality dimension of moral judgment. There was no difference betwee the 5- and 7-year-olds on the perceptual role-taking tasks. Tanaka (1966) and Kingsley (1971) have found that perceptual role-taking as measured by the tasks in this study did not generally emerge until 9 or 10 years of age. It may be that the task was too difficult for the children in this study, although, all of the 7-year-olds passed the practice tasks with no apparent difficulty. It seems that 7-year-olds respond without reflection in what appears to them to be a very easy task, and therefore select the egocentric response instead of taking the visual perspective of the other child.

The failure to find a developmental trend for the restitution dimension could indicate that this dimension is already consolidated by 5 years of age.

There is some support for this interpretation in studies (Irwin & Hill, 1971; Irwin & Moore, 1972) which indicate that children as young as 4 years of age demonstrate an understanding of restitution.

There were no sex differences found on the moral judgment dimensions; although, there was a sex by age interaction on restitution, and boys performed better on the perceptual role-taking task than girls. Generally, in the literature on role-taking and moral judgment, sex has not been an important variable.

IQ As It Relates to Role-Taking and Moral Judgment

The present study found that there was a stronger relation between IQ and role-taking ($r=.51$, $p < .001$) than between IQ and moral judgment ($r=.21$, $p < .10$). This is in agreement with the findings of Study I (IQ was significantly related to role-taking but not to moral judgment) and further indicates that the significant relation between IQ and moral judgment found by others (e.g. Abel, 1941; Boehm, 1962; Johnson, 1962; MacRae, 1954; Whiteman & Kosier, 1964) may have resulted because they examined IQ and moral judgment in older children. It seems that there is a trend emerging which reflects the consolidation of cognitive structure of the child as he moves from preoperational to operational thought. In this case, there was no significant relation between IQ and moral judgment in 5-year-olds, borderline significance for a combined group of 5- and 7-year-olds, and a significant relation between the two variables by middle childhood.

Role-Taking and Moral Judgment Dimensions

The evidence provided by this study indicates that role-taking and moral judgment are both summary variables and that one cannot talk about either variable in broad general terms but must delineate what dimension of role-

or moral judgment is of importance to the particular question under study. Moreover, it points to the need for precise definitions of these constructs and the use of common instruments if research in this area is to make any progress.

There was a trend in this study for children to perform better on the affective and cognitive dimensions than on the perceptual role-taking dimension. This is also in agreement with the findings of Study I where it was suggested that this was the result of two factors, the child's own experience and the complexity of the task.

Cronbach (1955) has criticized the literature on role-taking in adults because investigators have failed to differentiate success achieved by role-taking and success achieved by assumed similarity of self and other. This may partly explain why the affective and cognitive (stories) role-taking tasks were relatively easy tasks forthe 5- and 7-year-olds in this study. The cognitive game overcame this criticism and this is perhaps why it was a difficult task for both groups.

A close examination of the moral judgment items indicated that the classical Piagetian intentionality model--both characters doing something accidentally but the character with the good intent doing more damage than the character with bad intent--was the most difficult for both age groups. It was also found that there was not a significant difference between 5- and 7-year-olds in their use of damage as an explanation for their choice of naughty characters. Piaget would predict that damage would be used by the younger children more than the older children. Perhaps the 7-year-olds were not cognitively mature enough for the difference to be significant.

Suggestions for Future Research

In summary, this study suggests that further research on the relation of role-taking to moral judgment is warranted, and that five-year-olds are in a transitional stage, but have some ability to perform on both kinds of instruments. Future studies would do well to include the following if the relation between these two variables is to be more fully understood:

1. extend the age range to include five, six, and seven-year-olds so that the role-taking-moral judgment relation could be more completely understood.

2. include a measure of cognitive functioning so that one might determine whether the onset of role-taking is tied to the child's level of cognitive maturity.

3. expand the number of stories in each of the moral judgment dimensions so that the individual moral judgment dimensions could be related to the separate role-taking areas.

4. sort out the subtle differences within the moral judgment categories, e.g., the nature of the damage (repairable, restorable, replaceable) or the nature of the misdeed (ignoring limits, disobeying commands, or willful malevolence).

5. develop a third type of cognitive task that represents an additional cognitive component. This task should require the child to use additional information (rather than discount it as in the stories) and in so doing to require the child to put himself in the place of another. The Parker Brothers game of "Clue" is an example of the kind of task needed. The experimenter's job would be systematically to investigate the child's strategy in playing the game.

6. systematically investigate reasoning behind the child's responses in both moral judgment and role-taking tasks. This information would allow one to map out different levels in the child's ontological development of these concepts and to identify the factors that are of primary importance at each level.

Once these factors have been investigated, other studies can look at the role of the peer group in relation to moral development and role-taking, whether the child's level of understanding is the same with regard to his own and another's behavior, whether degree of maturity in moral understanding is related to degree of maturity in moral behavior during early and middle childhood, and whether the Kohlberg stages would hold true in situations directly related to the child's experience rather than to conflict situations Kohlberg presents such as the Heinz story which pits grand larceny against impending death.

The current focus in moral development is on the older child's judgment in situations of moral conflict. There is also a need to study how the child defines concepts such as justice,

fairness, and morality, what kinds of situations he makes a conscious decision about and which he merely reacts to, and what he understands about how his actions will affect others. There has been but scant research on moral understanding in young children. It deserves careful, systematic study if we are to put together a more complete picture of moral growth and development.

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